

REMARKS/ARGUMENTS

STATUS OF CLAIMS

In response to the Office Action dated December 5, 2006, claims 1 and 2 have been amended, and claims 3-10 have been added. Claims 1-10 are now pending in this application. No new matter has been added.

REJECTION OF CLAIMS UNDER 35 U.S.C. § 102

Claims 1 and 2 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Wellig et al. (USPN 6,580,704).

The purpose of Wellig et al. is to permit two mobile terminals that are connected to the same access point to have direct communication with each other without going through the access point.

To expedite prosecution, independent claim 1 is amended to recite:

A wireless communication system comprising:
a wireless LAN access point connected to an external network;
a first mobile communication terminal having a first wireless LAN interface and connectable to the wireless LAN access point by way of the first wireless LAN interface; and
a second mobile communication terminal connectable to the external network by way of a base station connectable to a mobile communication interface and having a second wireless LAN interface, connectable to the wireless LAN access point, wherein
the first mobile communication terminal includes:
a connection request transmitting means for transmitting a connection request signal to the second mobile communication terminal by way of the wireless LAN access point; and
a wireless LAN connection switching means for establishing connection to the second wireless LAN

interface of the second mobile communication terminal
after transmitting the connection request signal, and
the second mobile communication terminal includes:

a connection request receiving means for receiving
the connection request signal; and

a base station connecting means which establishes
connection to the base station by way of the second
communication terminal upon and after reception of the
connection request signal, so as to enable its connection to
the base station with the first mobile communication
terminal by way of the second communication terminal.

In the present application, the second mobile communication terminal has a second wireless LAN interface and is further connectable to a base station, different from the first mobile communication terminal and the wireless LAN access point, via a wireless communication interface, and in response to validating the connection request signal, the base station connecting means further establishes connection to the base station via the wireless communication interface.

As described at page 18, line 25 to page 19, line 14 of the present application, a connection request from the first mobile communication terminal to the second mobile communication terminal is transmitted only by way of the access point (AP). Since the second mobile communication terminal receives the connection request signal by means of the second wireless LAN interface by way of the AP, the second wireless LAN interface is effective at the time when the connection request signal is received.

With the arrangement now recited in amended independent claim 1, assume, for example, the first mobile communication terminal were connected to the Internet via its wireless LAN interface and the wireless LAN access point of, for example, a coffee shop (a hotspot). When the signal from the hotspot falls below a threshold value, the second mobile communication terminal, having, for example, a second wireless LAN interface

(cell phone function), establishes a connection to the base station upon receipt of a valid connection request from the first mobile communication terminal (via the access point of the hotspot) and connects to the Internet via the base station. The second wireless LAN interface would then output the internet signal. When the signal from the hotspot finally falls to an unusable level, the wireless LAN switching means of the first mobile communication terminal will switch (handover) between the hotspot and the second wireless LAN interface of the second mobile communication terminal (having an acceptable signal strength) so that the first mobile communication terminal will remain connected to the Internet, but now through the second wireless LAN interface of the second mobile communication terminal that is connected to the Internet using the cell phone.

Such connection is not available in Wellig et al. as neither mobile terminal 12 or 12 is additionally connectable to a base station (which is different from AP). The AP of Wellig et al. corresponds to the claimed wireless LAN access point connected to a public wireless access network.

Claim 2 has been amended to delineate, *inter alia*:

...
the first mobile communication terminal further includes a communication status detecting means that detects the strength of the received signal from the wireless LAN access point and/or the status of communication with the wireless LAN access point;

the second wireless LAN interface of the second mobile communication terminal has a wireless LAN access point or wireless LAN client function, and

when the communication status detecting means determines that the first mobile communication terminal can be connected by means of the wireless LAN access point or wireless LAN client function of the second mobile communication terminal, establishes connection to the wireless

LAN access point or wireless LAN client function of the second mobile communication terminal, in infrastructure mode or in ad hoc mode.

In Wellig et al., MT1 and MT2 must maintain connection to access point AP in order for MT1 and MT2 to directly communicate with one another. If either MT1 and MT2 drop connection to AP, there can be no direct communication between MT1 and MT2.

In view of the above, amended independent claims 1 and 2 are patentable over Wellig et al. and their allowance is respectfully solicited.

NEW CLAIMS

New claims 3-10 have been added.

Claims 3 to 6:

These claims are concerned with the first mobile communication terminal (e.g., a PC). In these claims, the first mobile communication terminal is not limited to a wireless LAN terminal; it is sufficient that there be communication communicable by way of an AP.

Claim 3:

(1) A first communication interface corresponds, for example, to the first wireless LAN interface 31.

(2) The claimed subject matter is supported by the description at page 18, lines 1 to 16, line 25 to page 19, line 14; page 22, line 10 to page 23, line 6; page 26, line B to page 27, line 1 of the present application.

The claim wording has been selected so as not to exclude a feature of sending the connection request signal by way of "the first → AP → external network → the base → station → the second" route.

(3) As described at page 20, line 21 to page 21, line 6, and Fig. 2, the subject matter is supported by the passage "making it possible to provide continuous wireless access to the user even if the user goes away from wireless LAN hotspot area 32, as shown in Fig. 2".

Claim 4:

The claimed subject matter is supported by the description at page 18, lines 1 to 16, lines 25 to page 19, line 14; page 22, line 10 to page 23, line 6; page 26, line 8 to page 27, line 1 of the present application.

Claim 5:

In claim 5, the feature of communication corresponds, for example, to new BSS (communication in infrastructure mode) or communication in ad hoc mode utilizing other communication apparatus as described above as AP.

Claims 7 to 10:

These claims are concerned with the second mobile communication terminal (cellular phone). The scope covers the feature wherein data is transferred to the external network by way of the base station from the (second) mobile communication terminal

regardless of whether calling is established or not from the (second) mobile communication terminal to the base station.

Here, as described regarding amended independent claim 1, the communication is established by way of the first mobile communication terminal → the second mobile communication terminal → a different station (base station) different from AP for which the first mobile communication terminal has been connected → the desired terminal.

Accordingly, limitations such as to establish calling, or to designate calling timing to be a time when the connection request signal is received have not been introduced.

Claim 7:

(1) The first mobile communication terminal (100) is communicable to the exterior of the wireless LAN hotspot area by way of the AP (300), while the (second) wireless LAN interface (18) of the (second) mobile communication terminal (200) is communicable with the communication system (wireless LAN); see page 17, lines 18 to 25 of the present application.

(2) The (second) communication interface corresponds, for example, to the second wireless LAN interface 18.

(3) The mobile communication interface corresponds, for example, to W-CDMA interface 24.

(4) The last part of the claim is supported by the description at page 19, line 15 to page 20, line 8 of the present application.

Furthermore, as described at page 20, line 21 to page 21, line 6, and Fig. 2 of the present application, the claimed subject matter is supported by the passage "making it

possible to provide continuous wireless access to the user even if the user goes away from wireless LAN hotspot area 32, as shown in Fig. 2".

Claim 8:

The claimed subject matter is supported by the description at page 19, line 25 to page 20, line 8; page 24, line 24 to page 25, line 5; page 28, lines 3 to 9 of the present application.

Claim 9:

The claimed subject matter is supported by the description at page 19, line 25 to page 20, line 12; page 21, lines 7 to 16 of the present application.

Furthermore, as described in page 20, line 21 to page 21, line 6, and Fig. 2 of the present application, the claimed subject matter is supported by the passage "making it possible to provide continuous wireless access to the user even if the user goes away from wireless LAN hotspot area 32, as shown in Fig. 2".

Claim 10:

(1) The wireless LAN corresponds, for example, to the second wireless LAN interface 18.

(2) The claimed subject matter is supported by the description at page 21, lines 7 to 16 of the present application.

Claims 3-10 are patentable over Wellig et al. and their allowance is respectfully solicited.

CONCLUSION

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Edward J. Wise (Reg. No. 34,523) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

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Respectfully submitted,

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